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**PRANAV CHAKRAVARTHY**, University of Western Ontario

*Homotopy type of equivariant symplectomorphisms of rational ruled surfaces.*

Darboux's theorem states that "all symplectic manifolds locally look alike". Consequently, there are no local invariants in symplectic geometry, and one must look for global invariants to probe symplectic manifolds. Such invariants can be obtained by investigating the homotopy type of mapping spaces related to the symplectic structure. In this talk, we compute the homotopy type of the group of equivariant symplectomorphisms of  $S^2 \times S^2$  and  $\mathbb{C}P^2$  blown up once under the presence of hamiltonian  $S^1$  or finite cyclic group actions.